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ABSTRACT

A method of real-time shadow generation in computer graphical representation of a scene, the method comprising defining an eye's frustum based on a desired view of the scene; defining a location of a light source illuminating at least a portion of the scene; generating a trapezoid to approximate an area, E, within the eye's frustum in the post-perspective space of the light, L; applying a trapezoidal transformation to objects within the trapezoid into a trapezoidal space for computing a shadow map; and determining whether an object or part thereof is in shadow in the desired view of the scene utilising the computed shadow map.